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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,448	01/05/2007	Tatsuya Oshita	291911US0PCT	2167
22850 7590 01/27/2009 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER KASHNIKOW, ERIK	
			ART UNIT 1794	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/581,448	Applicant(s) OSHITA ET AL.	
	Examiner ERIK KASHNIKOW	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/01/06, 08/15/06, 07/22/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the **abstract not exceed 150 words in length** since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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3. Claims 1-4, 6-16 and 22-29 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-16 of copending Application No. 11/916,371. Although the conflicting claims are not identical, they are not patentably distinct from each other because The instant claims differ from the copending claims because the copending claims require an additional limitation of a compound (D), however since the instant claims are using the comprising language, therefore it would include the embodiments of the copending claims which require the additional compound. In regards to instant claims 27 and 28 while the copending claims teach mixing the products, they are silent about applying the product as a solution and drying it to form another layer, however it would be obvious to one of ordinary skill in the art to apply a solution to a substrate and letting it dry to form another layer since this would save steps and cost production by requiring no further machinery.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-4, 6-16 and 22-29 directed to an invention not patentably distinct from claims 1-16 of commonly assigned application 11/916.371. Specifically, see above for details.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned 11/916,371, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting

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inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

4. Claims 1, 4-7, 16, 17, 22 and 23 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3-8, 10-17 and 19 of copending Application No. 11/909,562. Although the conflicting claims are not identical, they are not patentably distinct from each other because the container in the instant claim is silent regarding a window in the paper container, however, the present claims broadly disclose packaging medium while copending claims disclose specific containers. It is clear that the specific containers of copending '562 would fall within the scope of the presently claimed packaging medium. Further, it would have been obvious to one of ordinary skill in the art at the time of the invention to put a window in a container to enable a consumer to see what is inside the package.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1, 4-7, 16, 17, 22 and 23 directed to an invention not patentably distinct from claims 1, 3-8, 10-17 and 19 of commonly assigned 11/909,562. Specifically, see above for details.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned 11/909,562, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5, 7, 8, 11, 12, 15, 16, 17, and 21-30 are rejected under 35

U.S.C. 102(b) as being anticipated by Hori et al. (JP 2003-292713).

7. In regards to claims 1 and 16 Hori et al. teach a gas barrier laminate which comprises a gas barrier layer and a substrate layer (paragraphs 0010 and 0029). Hori et al. teach that the gas barrier layer comprise a polyacrylic acid and a metal compound to which an alkoxy (where R^2 is an alkyl group) group has been bonded, wherein the carboxyl group has been neutralized by at least a divalent metal atom (paragraphs 0010-0016).

8. In regards to claims 2, 26 and 29 Hori et al. teach that 2-30% of the carboxyl group is neutralized (paragraph 0013).

9. In regards to claim 3 Hori et al. teach that a monovalent metal salt is used to partially neutralize the $-\text{COO}-$ group (paragraph 0012). Hori et al. teach that percent of neutralization is 2-30%, which is within applicant's range.

10. In regards to claim 4 Hori et al. teach embodiments of compound A wherein $k=0$ (paragraph 0016).

11. In regards to claim 5 Hori et al. teach that the functional group may be an amino group (paragraph 0016).

12. In regards to claims 7 and 25 Hori et al. teach that a hydroxyl group may also be bonded to the metal atom (paragraph 0016).

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13. In regards to claim 8 Hori et al. teach that the metal atom may be a silicon atom (paragraph 0016).

14. In regards to claims 11 and 12 as the compounds in Hori et al. are made of the same materials as presently claimed they would inherently have the same properties.

15. In regards to claim 15 Hori et al. teach the inclusion of an organometallic (i.e. inorganic) compound in the amounts of 0.1-50% (paragraph 0019).

16. In regards to claim 17 Hori et al. teach that the metal ion may be a calcium, barium or zinc ion (paragraph 0021).

17. In regards to claims 21-23 Hori et al. teach that the gas barrier film may use paper as a base layer, and that the product may take the form of a container which is a packaging medium (paragraph 0029).

18. In regards to claim 24 Hori et al. teach that the product is formed by forming the layer containing the compound containing a metal atom and bringing it into contact with a solution containing a metal ion with a valence of two or more (paragraph 0024).

19. In regards to claims 27 and 28 Hori et al. teach that the film of the metal is formed by forming a liquid of the composition and coating and drying it onto another layer (paragraphs 0026 and 0036).

20. In regards to claim 30 Hori et al. teach a heat treatment step (paragraph 0036 and table 1) which involves heating the composition to 180°C preformed after the first step.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claims 6, 9, 10, 13, 14, 18, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hori et al. (JP 2003-292713) in view of Yamamoto et al. (JP 2002-326303).

23. As stated above Hori et al. teach a gas barrier laminate which comprises a barrier layer and a substrate layer wherein the barrier layer comprised a polyacrylic acid compound and a metal containing compound, however they are silent regarding concentrations, as well as specific metal containing compounds.

24. Yamamoto teaches gas barrier films (paragraph 0001).

25. In regards to claims 6 and 13 Yamamoto teaches that two or more metal containing compounds(paragraphs 0010-0012) may be included with the substrate, including gamma-mercapto propyltrimethoxysilane (an example of compound A) and tetramethoxy silane (paragraph 0036) (an example of compound B).

26. In regards to claims 9 and 10 Yamamoto teaches a further compound be added to the mixture (compound C) which corresponds to Applicants A' and comprises gamma-mercaptopropyltrimethoxysilane, an example of the preferred 3-mercaptopropyltrialkoxysilane (paragraph 0041).

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27. In regards to claim 14 while Yamamoto is silent with regards to mole ratios absent a showing of criticality with respect to "mole ratios" (a result effective variable), it would have been obvious to a person of ordinary skill in the art at the time of the invention to adjust the "mole ratios" through routine experimentation to values, including those presently claimed in order to achieve "a product with an effective gas barrier property with adequate adhesion and decreased crack formation (paragraph 0049)". It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

28. In regards to claim 18 Yamamoto et al. teach that polyalcohols, such as glycols may be added to the composition (paragraph 0044).

29. In regards to claim 19 while Yamamoto is silent with regards to concentration of the polyalcohol component of the composition absent a showing of criticality with respect to "polyalcohol component composition" (a result effective variable), it would have been obvious to a person of ordinary skill in the art at the time of the invention to adjust the "composition of the polyalcohol component" through routine experimentation to values, including those presently claimed in order to achieve "a product with an uniform smooth coat ". It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

30. In regards to claim 20 while Yamamoto is silent regarding embodiments wherein there is an adhesion layer between the base layer and the gas barrier layer, they do teach anchor layers between the two layers as well as adhesion layers for use

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throughout the invention, and one of ordinary skill in the art at the time of the invention would be motivated to move the adhesion layer between the two layers if an increased level of adhesion is desired.

31. One of ordinary skill in the art at the time of the invention would be motivated to modify the invention of Hori et al. with that of Yamamoto because the invention of Yamamoto offers good gas barrier properties with excellent flexibility (paragraph 0007).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIK KASHNIKOW whose telephone number is (571)270-3475. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Erik Kashnikow
Examiner
Art Unit 1794

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794

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